

REMARKS

An editorial correction has been made to the specification. Claims 1, 5 - 6, 10 - 11, and 15 - 16 have been amended. No new matter has been introduced with this correction or these amendments, which are supported in the specification as originally submitted. Claims 1 - 24 remain in the application.

I. Rejection under 35 U.S.C. §103(a)

Page 2 of the Office Action dated June 5, 2003 (hereinafter, "the Office Action") states that Claims 1, 4 - 6, 9 - 11, and 14 - 17 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Gorelik et al. (U. S. Patent Publication US2002/0004799) in view of Fortier (U. S. Patent 5,497,487). This rejection is respectfully traversed with reference to the claims as amended herein.

Applicants have amended their independent Claims 1, 6, and 11 to explicitly specify that the two indexes each index a single copy of data. This is distinct from Gorelik, which teaches using two copies of the database. (See lines 4 - 7 of the Abstract; lines 2 - 3 of paragraph 8; lines 5 - 7 of paragraph 22; lines 3 - 4 of paragraph 30; and lines 6 - 7 of paragraph 39.) As will be obvious, using two indexes (as in Applicants' invention) to a single copy of the data, rather than duplicating the underlying data (as in Gorelik's technique), provides significant advantages in terms of reduced storage space and so forth.

Page 4, paragraph 1 of the Office Action admits that Gorelik uses two databases instead

of two indexes. Fortier is then cited as teaching use of two indexes, and the Office Action states that it would be obvious to combine Fortier with Gorelik. Applicants respectfully disagree that this combination would be obvious, and furthermore, this combination would not yield Applicants' claimed invention. A combination of Fortier with Gorelik would apparently yield an approach that uses two databases and two indexes for each database, which would be quite inefficient. Gorelik simply does not teach using two indexes to the same data, as in Applicants' invention.

Page 4, paragraph 2 of the Office Action states that Gorelik does not explicitly disclose switching after each update, but that this would have been obvious because if not, the query "will search the old incorrect content". In fact, Gorelik does specify when his databases are to be switched, and it is not after each update. Refer to paragraphs 36 and 37 of Gorelik, where his three approaches to switching are described. As Applicants have discussed in their response to the previous Office Action, these paragraphs of Gorelik teach that the switching may be triggered by (1) manual intervention of a user, (2) completion of "all of the relevant data flows" of a job, or (3) a switch that is scheduled "at the optimal times".

Clearly, manual intervention is different from switching after every update, and it is impractical to expect that a user could be involved at that level (and furthermore, such user intervention would necessarily result in a very slow system).

A "scheduled" switching, as disclosed in Gorelik, means a switching that occurs at some

predetermined time during the day. (See paragraph 37, which states "With scheduled switching, jobs are scheduled to run at specific times, and the switch is scheduled for a time when jobs are not scheduled.".) Accordingly, this is not switching "responsive to ... performing" an update, as in Applicants' Claims 1, 6, and 11.

Gorelik's only other disclosed approach for switching the databases is the "application initiated switching". This is referred to in paragraph 36 as "to add a trigger at the end of a job to switch at the completion of all of the relevant data flows". Paragraph 37 further expands on this application-initiated switching, and explains that a timeout procedure is used whereby the switching operation may be abandoned if the timer expires but more jobs are still running.

As Applicants have previously noted, their per-update switching allows more timely representation of new data than using Gorelik's "completion of all relevant data flows" approach. Gorelik presents Appendix A, stating (in paragraphs 20 and 31) that this is a sample file used to buffer updates using SQL commands. However, Applicants note that records for 13 different employees are presented in this example. Therefore, Gorelik is clearly not applying an update and then switching the databases after that update. Accordingly, Gorelik's application-initiated switching is distinct from Applicants' Claims 1, 6, and 11.

Applicants have also amended their independent Claims 1, 6, and 11 herein to specify that the serialized information includes how the index was traversed for making the update, and how the index was modified, and that this information is used after the switching to efficiently

traverse and modify the newly-switched index. (See, for example, p. 17, line 16 - p. 18, line 5 of Applicants' specification, where this is discussed.) Neither Gorelik nor Fortier teaches this concept. As shown in Gorelik's Appendix A, the entire set of transactions is buffered (apparently in the same form as originally applied to the first database). Paragraph 31 states that the updates can be buffered as SQL commands, which means that each database transaction is to be performed anew on the second database, including searching for the appropriate location to be updated. This is distinct from Applicants' efficient technique.

Applicants' independent Claim 16 has been amended herein to specify the use counts that are depicted in Fig. 2A (element 205) and described with reference to Figs. 3 and 4 of their specification. Neither Gorelik nor Fortier uses this use count technique.

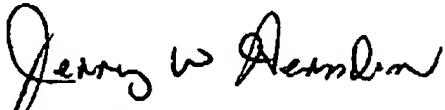
Claim 17 specifies use of two indexes to the same data. As Applicants have described above, this is distinct from Gorelik, and a combination of Gorelik with Fortier does not yield this approach.

Thus, it can be seen that Gorelik's technique, whether taken singly or in combination with Fortier, is distinct from Applicants' independent Claims 1, 6, 11, 16, and 17. Applicants respectfully submit that their dependent claims are therefore patentable as well. The Examiner is therefore respectfully requested to withdraw the §103(a) rejection.

II. Conclusion

Applicants respectfully request reconsideration of the pending rejected claims, withdrawal of all presently outstanding rejections, and allowance of all claims at an early date.

Respectfully submitted,



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